Fig. 1

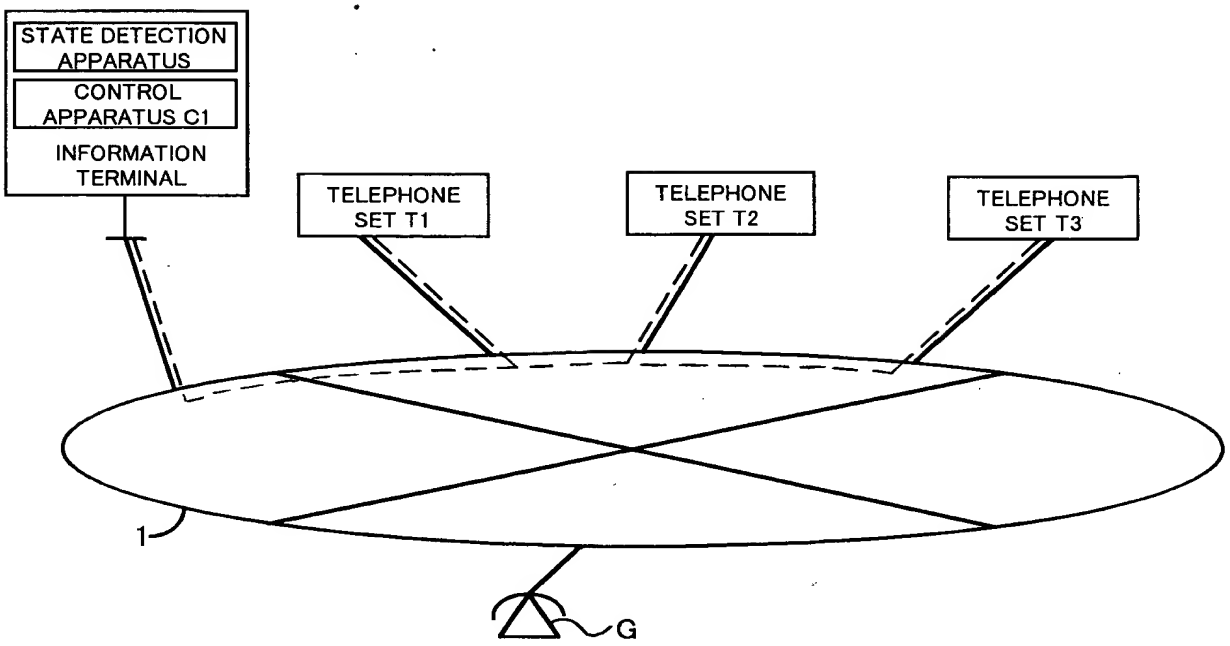

STATE DETECTION APPARATUS
CONTROL APPARATUS C1
INFORMATION TERMINAL
TELEPHONE SET T1
TELEPHONE SET T2
TELEPHONE SET T3
1
G

Fig. 2

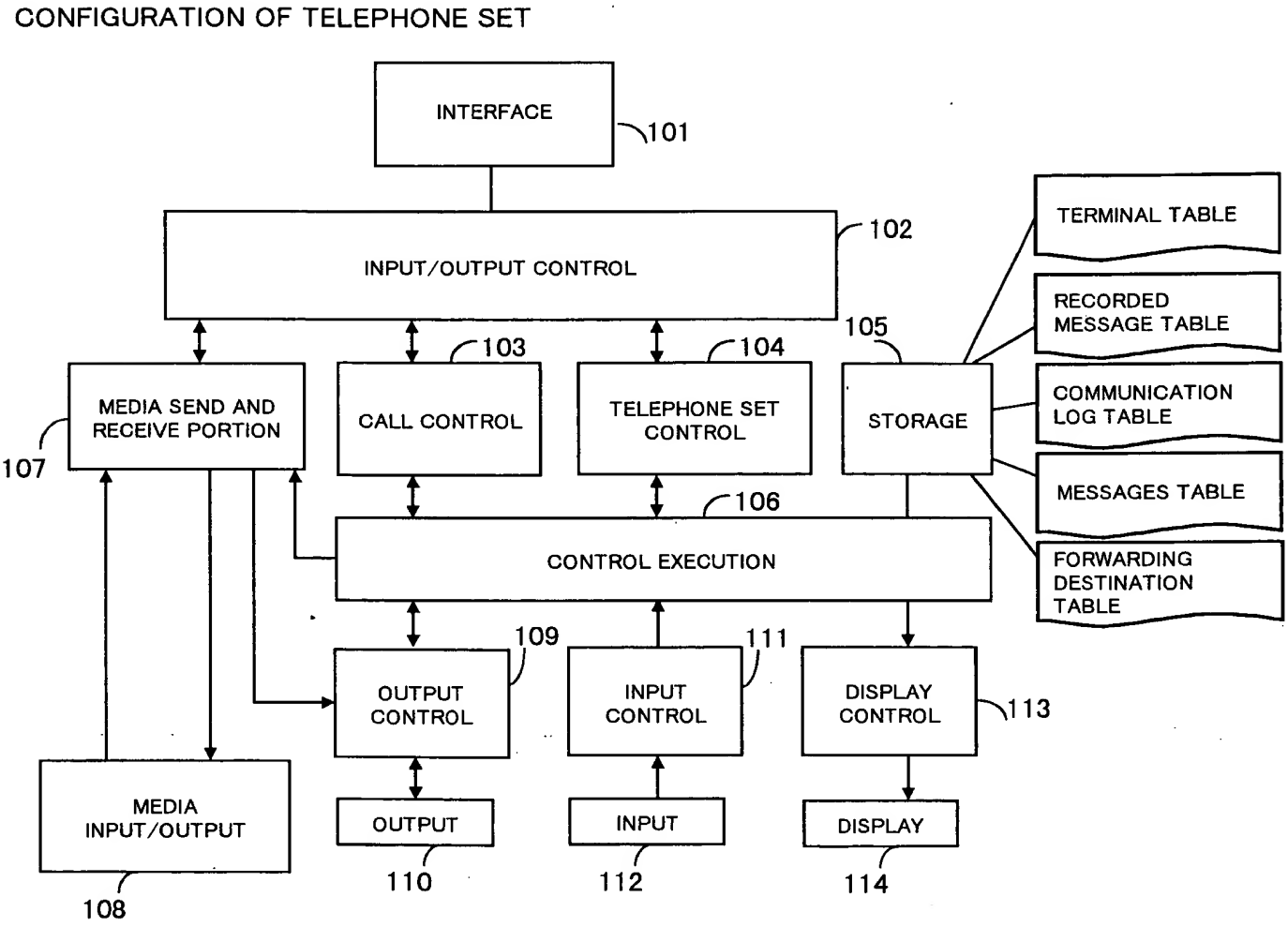

CONFIGURATION OF TELEPHONE SET
INTERFACE
101
INPUT/OUTPUT CONTROL
102
TERMINAL TABLE
RECORDED MESSAGE TABLE
COMMUNICATION LOG TABLE
MESSAGES TABLE
FORWARDING DESTINATION TABLE
105
103
104
MEDIA SEND AND RECEIVE PORTION
CALL CONTROL
TELEPHONE SET CONTROL
STORAGE
107
106
CONTROL EXECUTION
109
111
OUTPUT CONTROL
INPUT CONTROL
DISPLAY CONTROL
113
MEDIA INPUT/OUTPUT
OUTPUT
INPUT
DISPLAY
108
110
112
114

Fig. 3

TERMINAL TABLE

TERMINAL	IP ADDRESS	USER NAME	PERSONAL INDENTIFICATION NAMBER
C1	10.254.211.10	user-A	007

Fig. 4

MESSAGES TABLE

CALLING PARTY IP ADDRESS	CALLING PARTY NAME	MESSAGE
10.254.211.14 ⋮	Taro Fujitsu ⋮	Since I am out of the office on a business trip today,···

Fig. 5

FORWARDING DESTINATION TABLE

CALLING PARTY IP ADDRESS	CALLING PARTY INFORMATION*	TIME	FORWARDING DESTINATION ADDRESS	FORWARDING DESTINATION INFORMATION
10.254.211.18	Goemon Fujitsu	17:00-8:00	10.254.211.12	President' Office (Tokyo)
10.254.211.16	Saburo Fujitsu		10.254.211.13	Vice President's Office (Osaka)
⋮	⋮	⋮		

Fig. 6

CONFIGURATION OF CONTROL APPARATUS

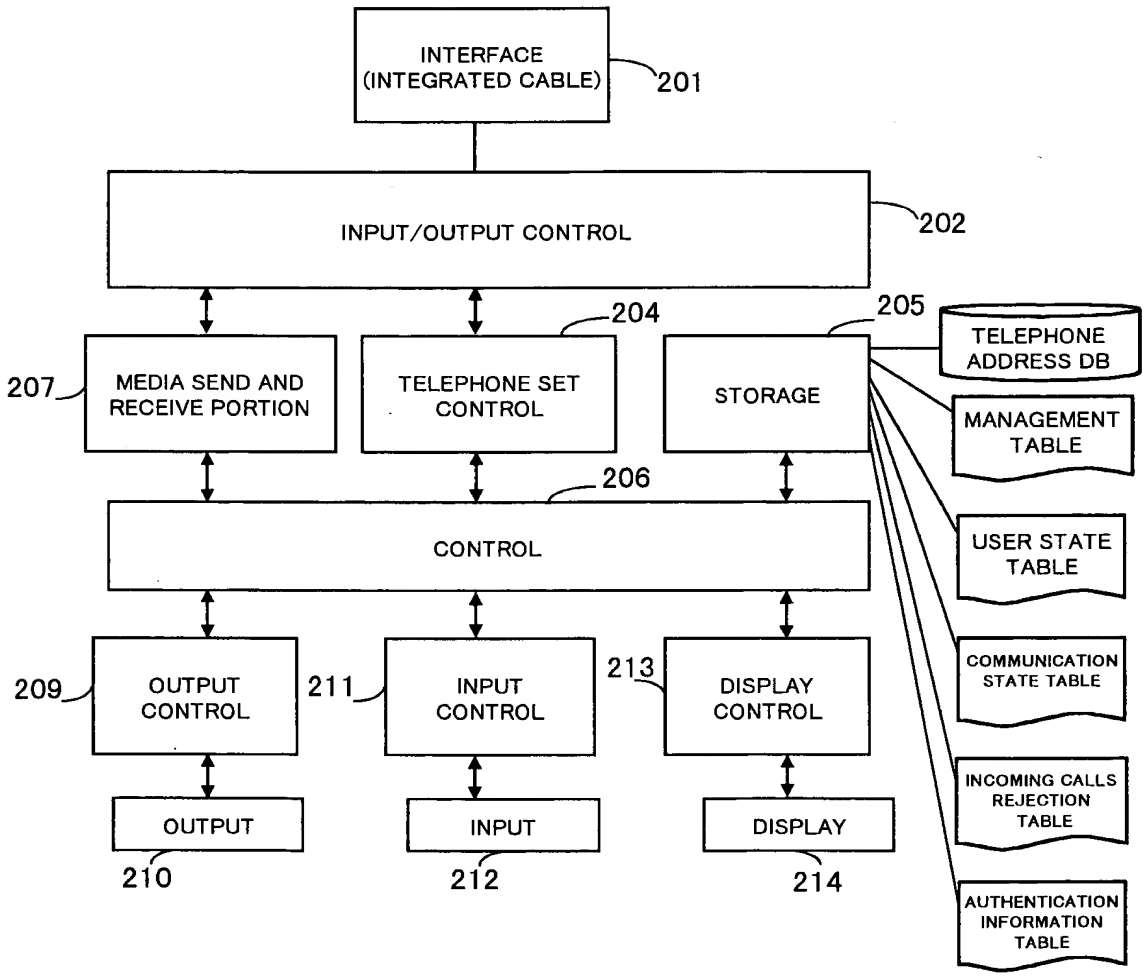


Fig. 7A
MANAGEMENT TABLE

C1			
T1	On the desk	10.254.211.11	Buttons 1,2,3,Display
T2	President's Office (Tokyo)	10.254.211.12	Buttons 1,2,3,Display
T3	Vice President's Office(Osaka)	10.254.211.13	Buttons 1,2,3,Display

Fig. 7B
USER STATE TABLE

C1		
T1	On the desk	Absent
T2	President's Office (Tokyo)	Present
T3	Vice President's Office(Osaka)	Present

Fig. 7C
COMMUNICATION STATE TABLE

C1		
T1	On the desk	Free
T2	President's Office (Tokyo)	Connection in Progress
T3	Vice President's Office(Osaka)	Free

Fig. 7D
AUTHENTICATION INFORMATION TABLE

USER NAME	PERSONAL INDENTIFICATION NUMBER
user—A	007

Fig. 7E
INCOMING CALLS REJECTION TABLE

CALLING PARTY	MESSAGE
Saburo Fujitsu	The telephone number has changed·····
Jiro Fujitsu	This telephone number is presently·····

Fig. 8

FLOW OF PROCESSING PERFORMED BY TELEPHONE SET

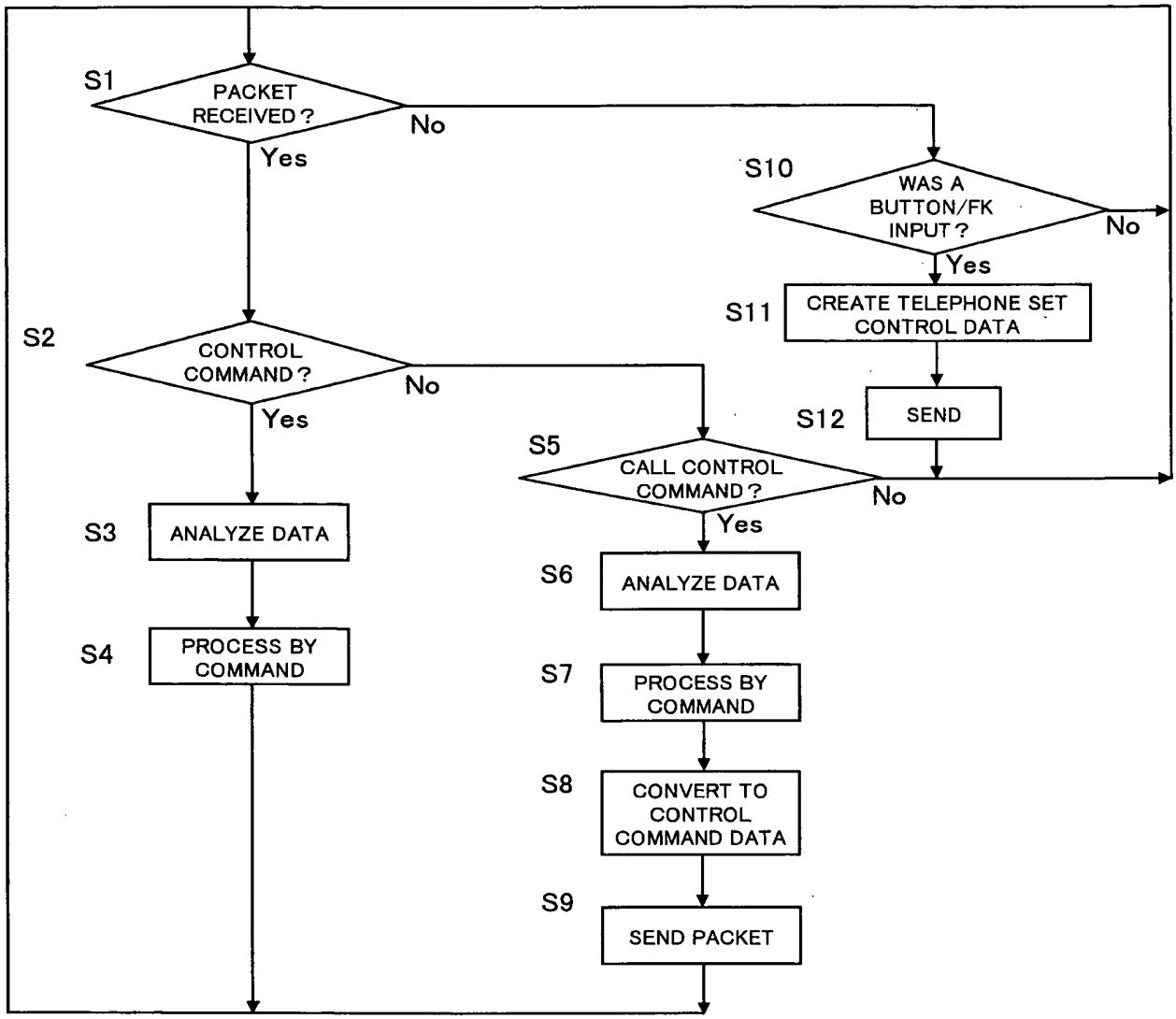


Fig. 9A

FLOW OF PROCESSING PERFORMED BY CONTROL APPARATUS

MONITORING PROCESSING

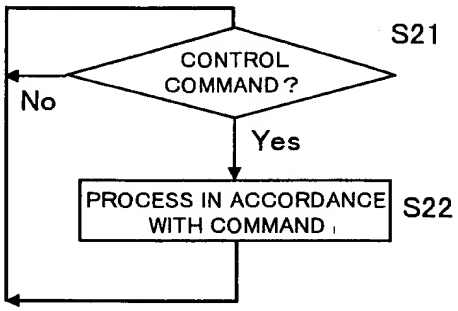


Fig. 9B

FLOW OF PROCESSING PERFORMED BY CONTROL APPARATUS

CONTROL PROCESSING

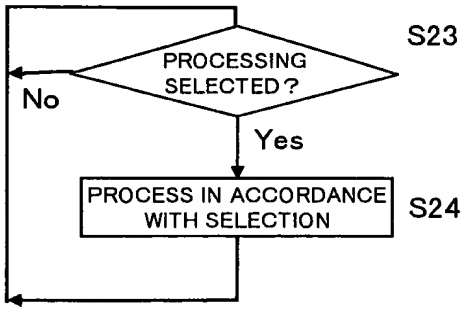


Fig. 10

EXAMPLE OF STATE NOTIFICATION WINDOW

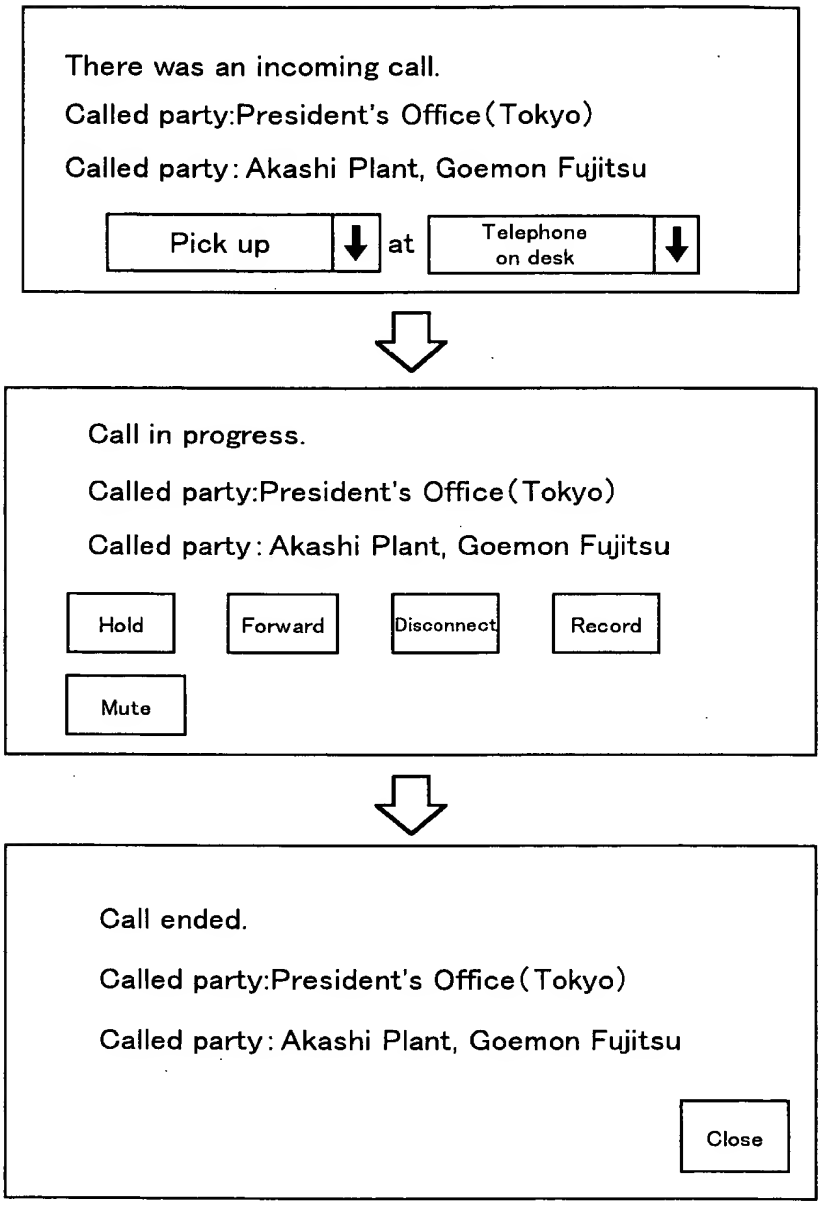


Fig. 11

CONTROL COMMAND(REPORT)

COMMAND TYPE	REQUESTING PARTY ADDRESS	CALL INDENTIFIER	CALLED PARTY ADDRESS	CALLING PARTY ADDRESS	COMMUNICATION STATE TYPE	RESULT	DETALL

Fig. 12

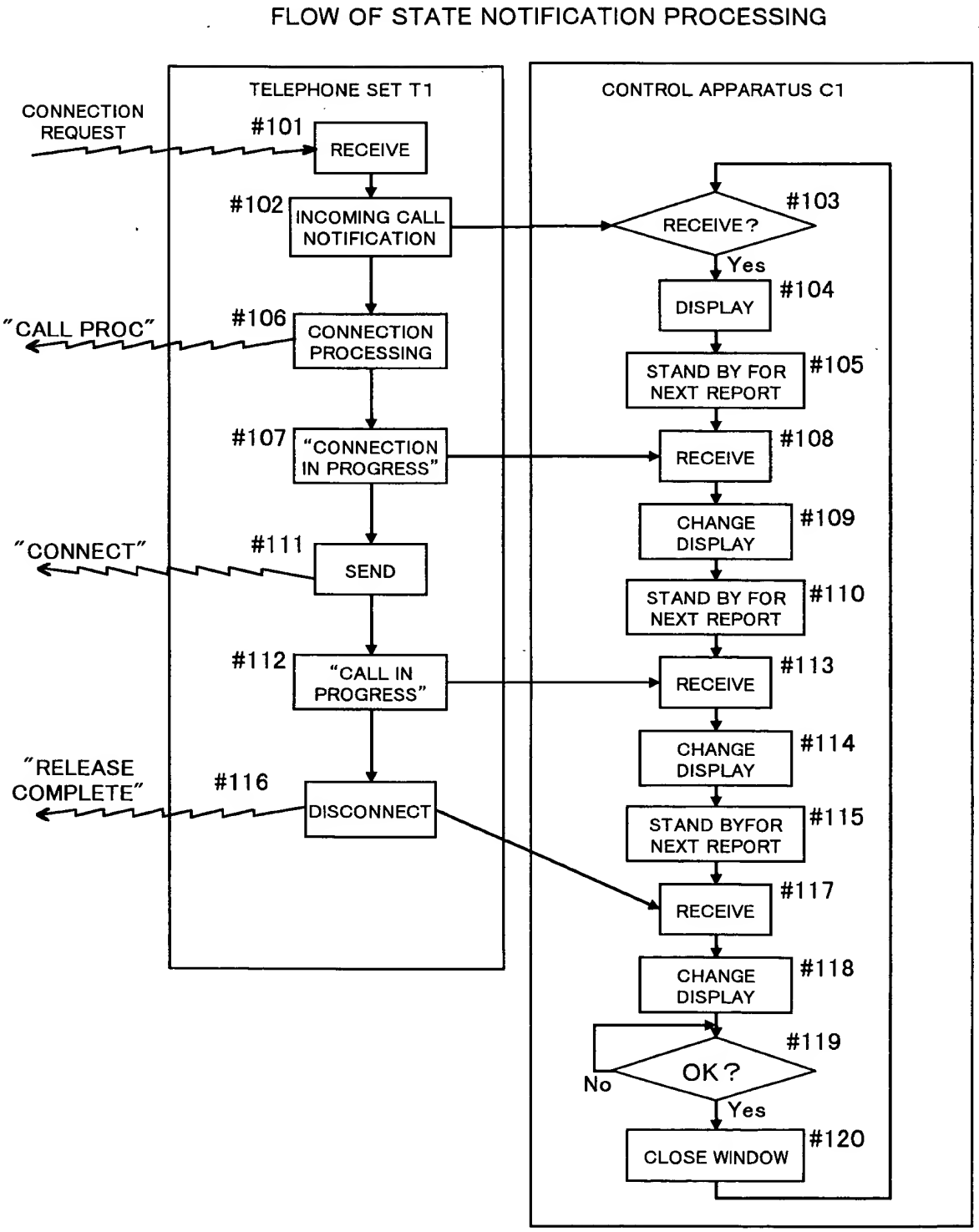

FLOW OF STATE NOTIFICATION PROCESSING
TELEPHONE SET T1
CONTROL APPARATUS C1
CONNECTION REQUEST
#101
RECEIVE
#102
INCOMING CALL NOTIFICATION
#103
RECEIVE?
Yes
#104
DISPLAY
#105
STAND BY FOR NEXT REPORT
"CALL PROC"
#106
CONNECTION PROCESSING
#107
"CONNECTION IN PROGRESS"
#108
RECEIVE
#109
CHANGE DISPLAY
#110
STAND BY FOR NEXT REPORT
"CONNECT"
#111
SEND
#112
"CALL IN PROGRESS"
#113
RECEIVE
#114
CHANGE DISPLAY
#115
STAND BYFOR NEXT REPORT
"RELEASE COMPLETE"
#116
DISCONNECT
#117
RECEIVE
#118
CHANGE DISPLAY
#119
No
OK?
Yes
#120
CLOSE WINDOW

Fig. 13

EXAMPLE OF STATE NOTIFICATION IN ACCORDANCE WITH USER STATE

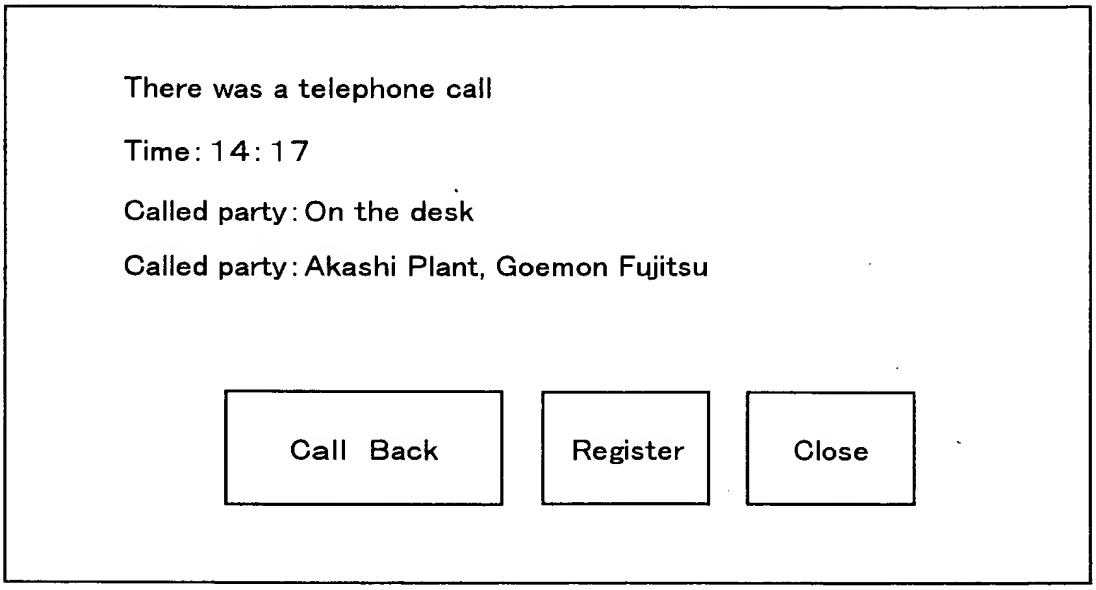


Fig. 14

MAIN MENU

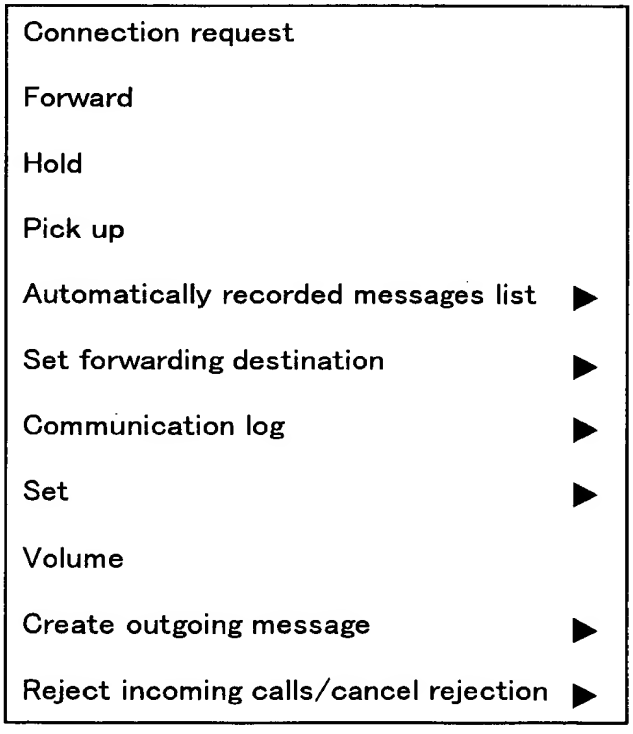


Fig. 15

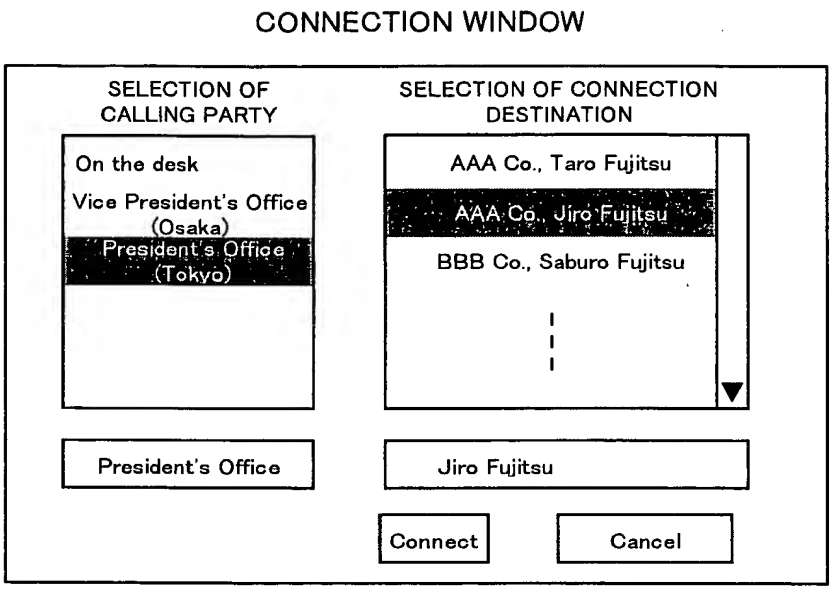


Fig. 16

EXAMPLE OF CONTROL COMMAND(CONNECTION REQUEST)

COMMAND TYPE	CALL INDENTIFIER	CONNECTION DESTINATION ADDRESS	REQUESTING PARTY ADDRESS	RESULT	DETAIL

Fig. 17

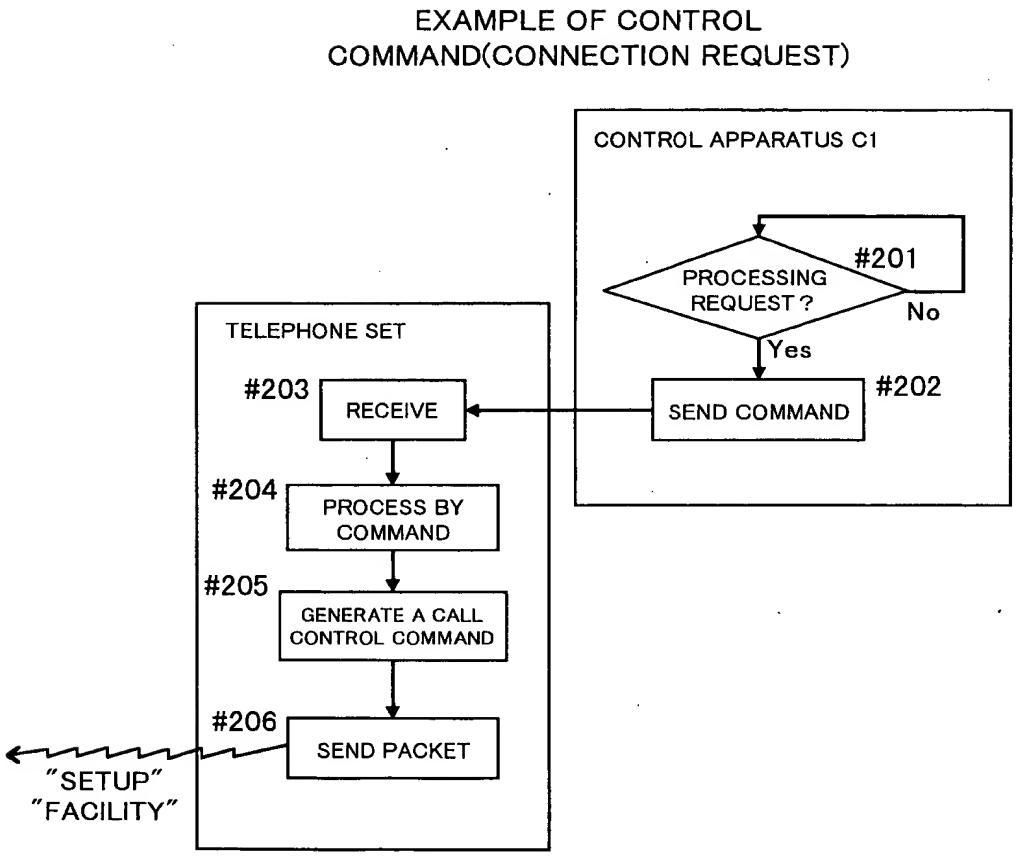

EXAMPLE OF CONTROL COMMAND(CONNECTION REQUEST)
CONTROL APPARATUS C1
#201
PROCESSING REQUEST ?
No
Yes
#202
SEND COMMAND
TELEPHONE SET
#203
RECEIVE
#204
PROCESS BY COMMAND
#205
GENERATE A CALL CONTROL COMMAND
#206
SEND PACKET
"SETUP"
"FACILITY"

Fig. 18

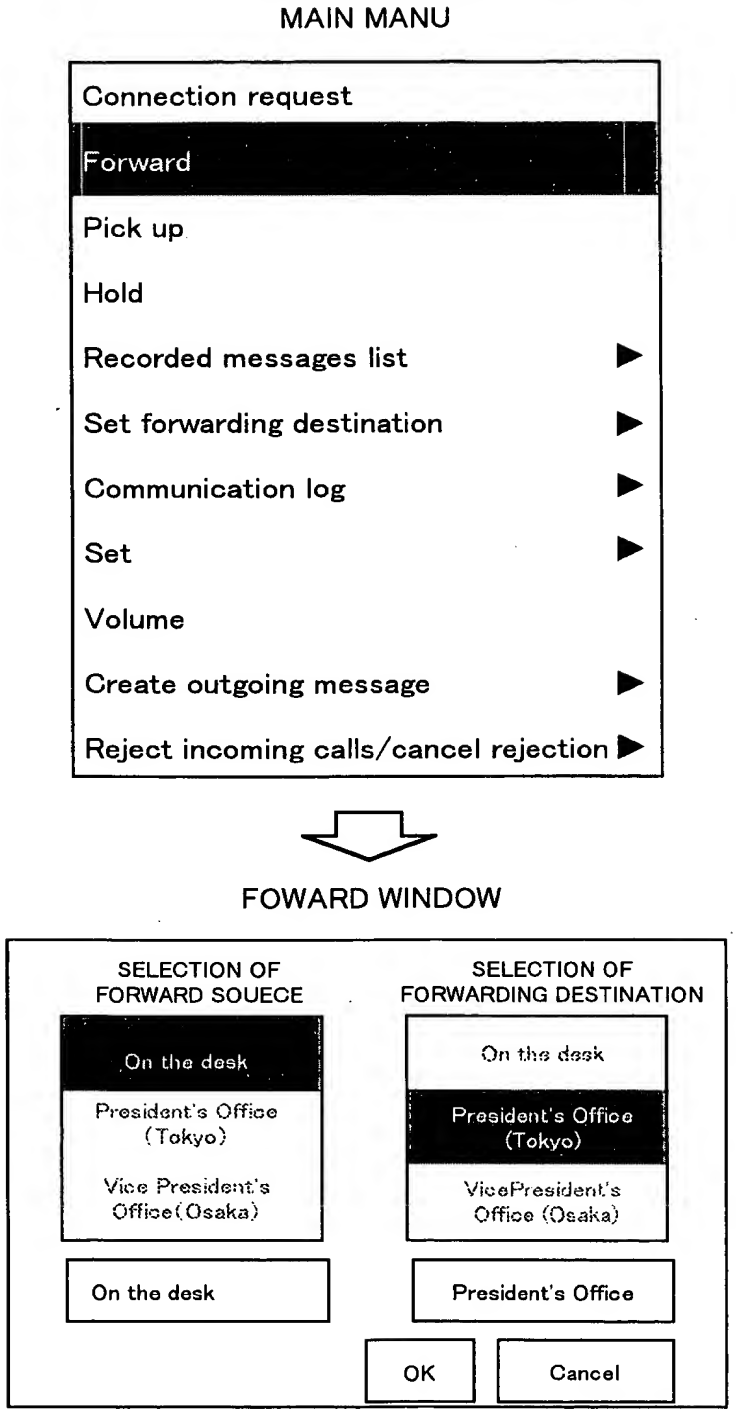

MAIN MANU
Connection request
Forward
Pick up
Hold
Recorded messages list
Set forwarding destination
Communication log
Set
Volume
Create outgoing message
Reject incoming calls/cancel rejection
FOWARD WINDOW
SELECTION OF FORWARD SOUECE
On the desk
President's Office (Tokyo)
Vice President's Office(Osaka)
On the desk
SELECTION OF FORWARDING DESTINATION
On the desk
President's Office (Tokyo)
VicePresident's Office (Osaka)
President's Office
OK
Cancel

Fig. 19

SELECTION LIST

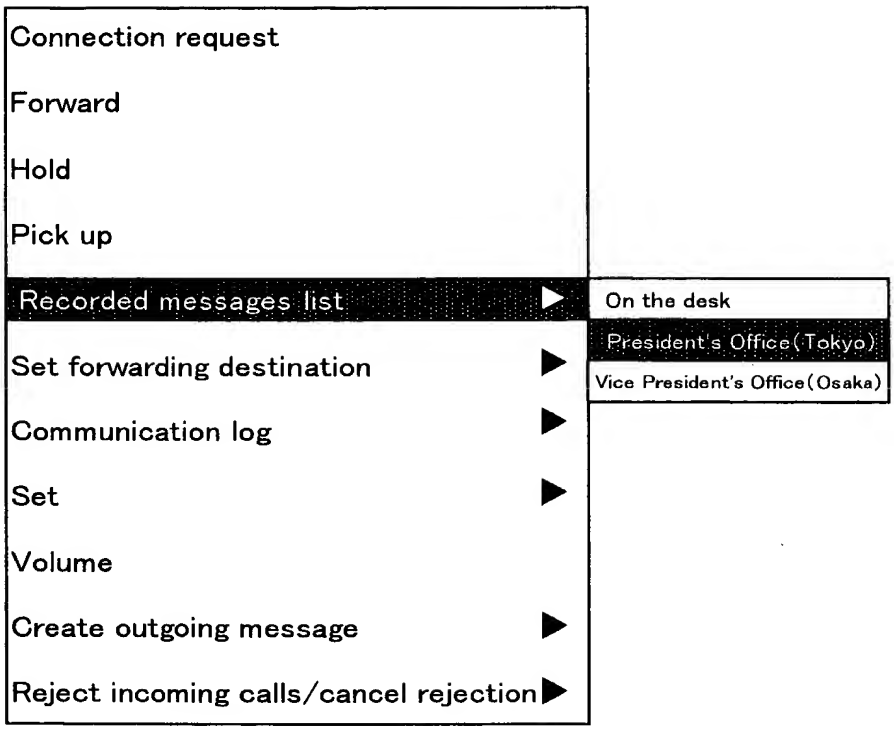
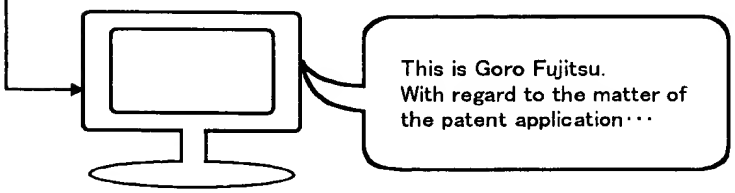


Fig. 20

RECORDED MESSAGES LIST

DATE AND TIME OF INCOMING CALL	CALLING PARTY
January 30, 9:10	06—6333—5555
January 30, 12:59	Patent Department, Goro Fujitsu



The recorded message may be retrieved by double clicking

Fig. 21

EXAMPLE OF CONTROL COMMAND
(RETRIEVE RECORDED MESSAGES LIST)

COMMAND TYPE	REQUESTING PARTY ADDRESS	RESULT	DETAIL

Fig. 22

EXAMPLE OF CONTROL COMMAND
(RECORDED MESSAGES LIST)

COMMAND TYPE	REQUESTING PARTY ADDRESS	NUMBER OF RECORDED MESSAGES

ONE FOR EACH MESSAGE

MESSAGE NO.	RECORDING START TIME	RECORDING TIME	CALLING PARTY ADDRESS	CALLER INFORMATION
MESSAGE NO.	RECORDING START TIME	RECORDING TIME	CALLING PARTY ADDRESS	CALLER INFORMATION

RESULT	DETAIL

Fig. 23

EXAMPLE OF CONTROL COMMAND
(RETRIEVE RECORDED MESSAGE)

COMMAND TYPE	REQUESTING PARTY ADDRESS	MESSAGE NO.	RESULT	DETAIL

Fig. 24

EXAMPLE OF CONTROL COMMAND
(RETRIEVE RECORDED MESSAGE)

COMMAND TYPE	REQUESTING PARTY ADDRESS	CODING TYPE	MESSAGE LENGTH

MESSAGE(VOICE DATA)

RESULT	DETAIL

Fig. 25

FLOW OF RECORDED MESSAGE OUTPUT PROCESSING

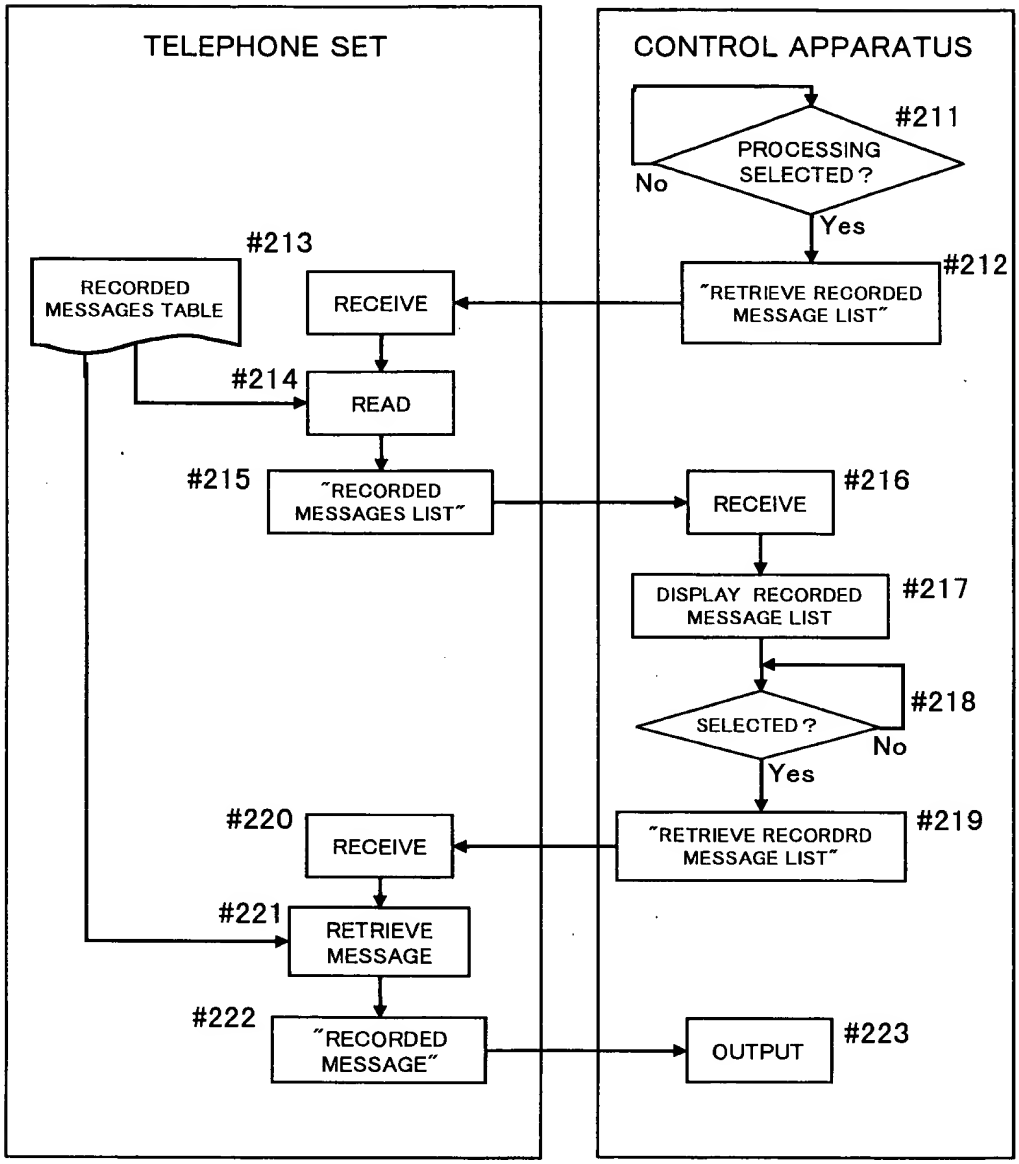


Fig. 26

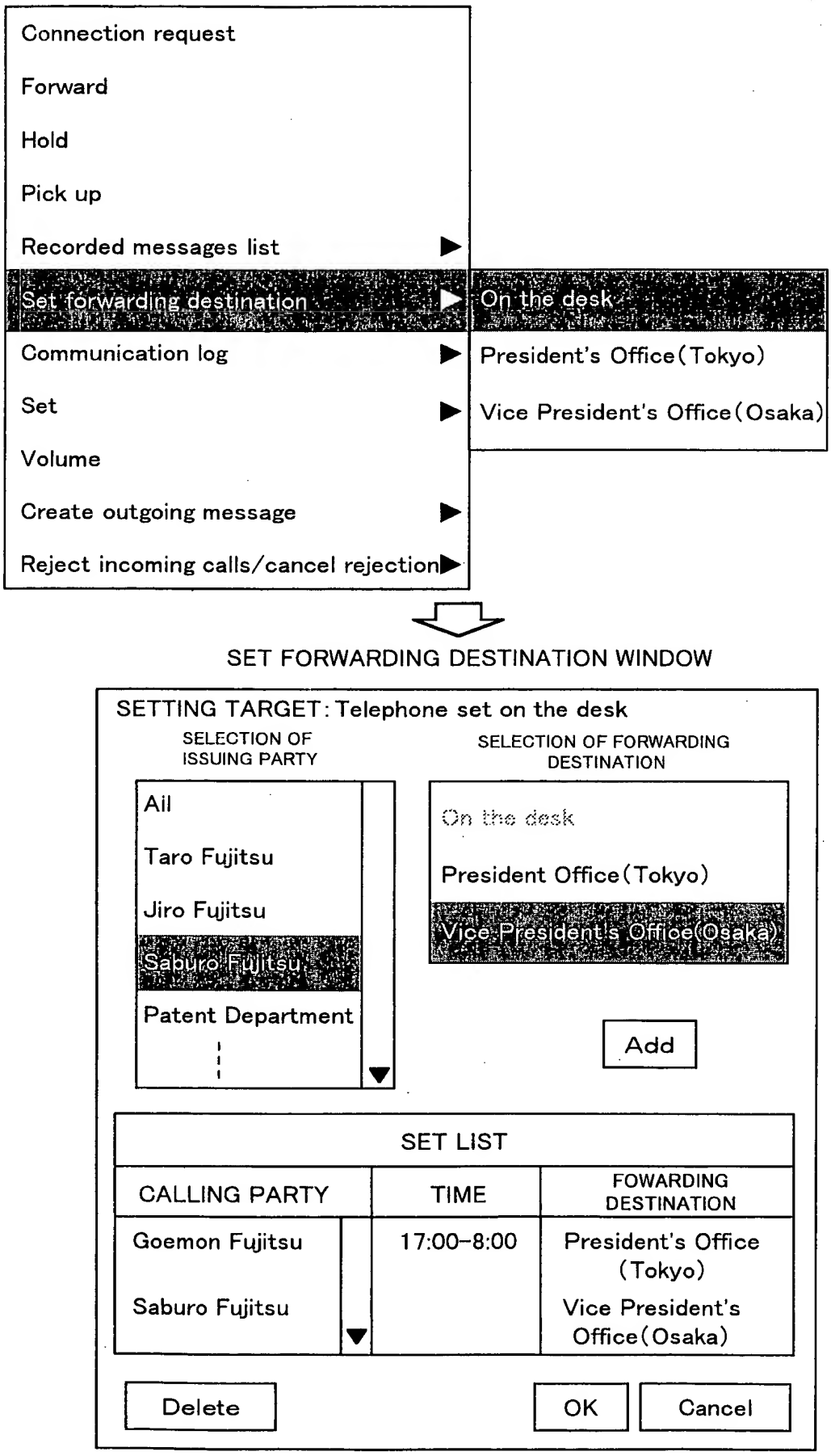

Connection request
Forward
Hold
Pick up
Recorded messages list
Set forwarding destination
Communication log
Set
Volume
Create outgoing message
Reject incoming calls/cancel rejection
On the desk
President's Office(Tokyo)
Vice President's Office(Osaka)
SET FORWARDING DESTINATION WINDOW
SETTING TARGET: Telephone set on the desk
SELECTION OF ISSUING PARTY
SELECTION OF FORWARDING DESTINATION
All
Taro Fujitsu
Jiro Fujitsu
Saburo Fujitsu
Patent Department
On the desk
President Office(Tokyo)
Vice President's Office(Osaka)
Add
SET LIST
CALLING PARTY
TIME
FOWARDING DESTINATION
Goemon Fujitsu
Saburo Fujitsu
17:00-8:00
President's Office (Tokyo)
Vice President's Office(Osaka)
Delete
OK
Cancel

Fig. 27

EXAMPLE OF CONTROL COMMAND(SET／CANCEL FORWARDING)

COMMAND TYPE	SET FUNCTION TYPE	SET FLAG

REQUESTING PARTY ADDRESS	FORWARDING DESTINATION ADDRESS	FORWARDING DESTINATION INFORMATION

RESULT	DETAIL

Fig. 28

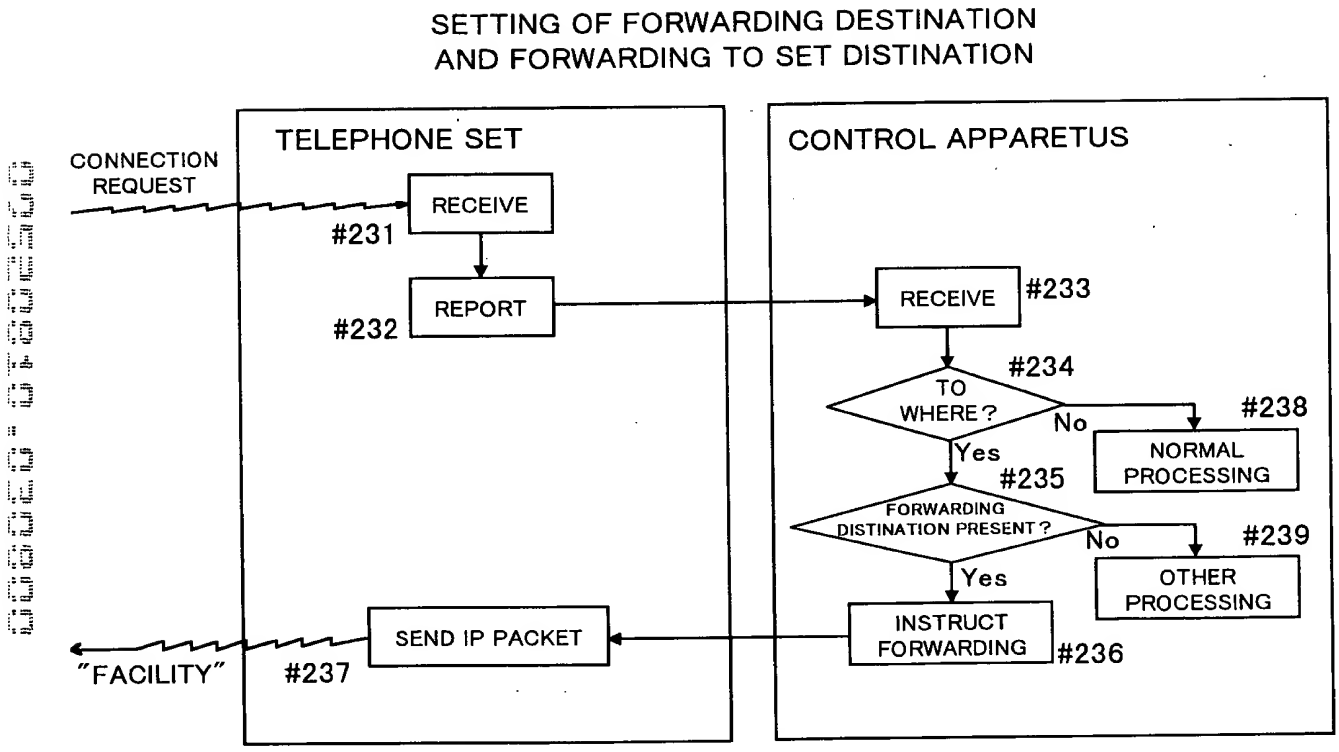
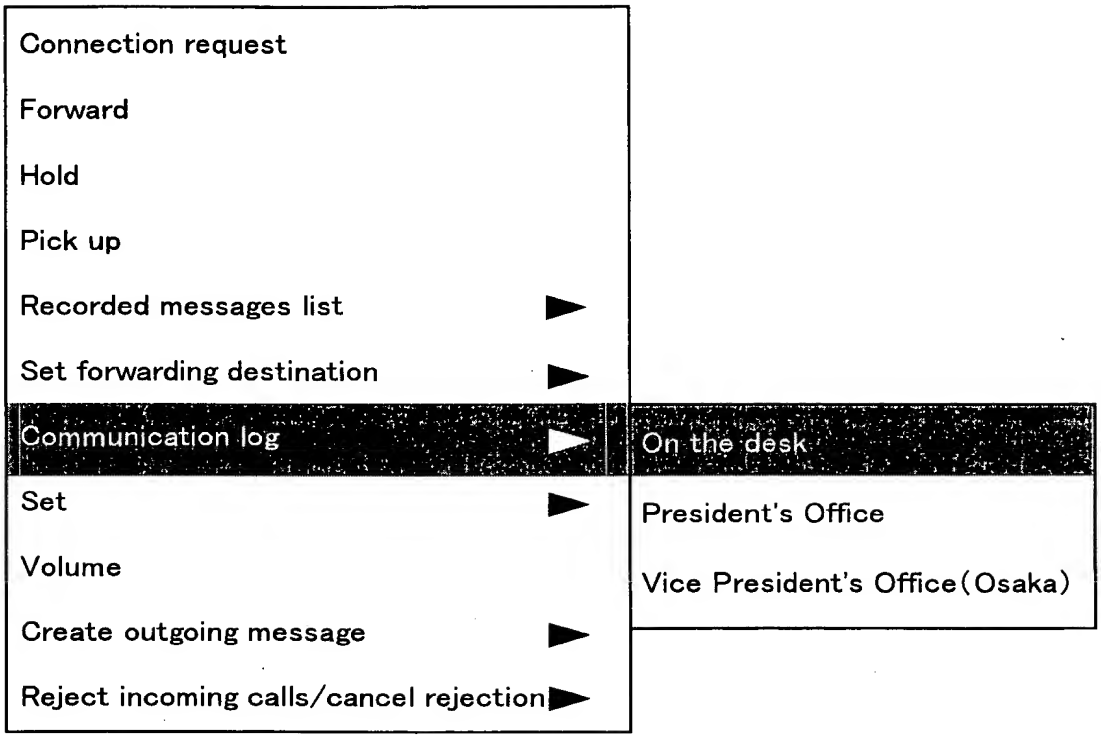

SETTING OF FORWARDING DESTINATION
AND FORWARDING TO SET DISTINATION
TELEPHONE SET
CONTROL APPARETUS
CONNECTION REQUEST
RECEIVE
#231
REPORT
#232
RECEIVE
#233
#234
TO WHERE?
No
#238
NORMAL PROCESSING
Yes
#235
FORWARDING DISTINATION PRESENT?
No
#239
OTHER PROCESSING
Yes
INSTRUCT FORWARDING
#236
SEND IP PACKET
"FACILITY"
#237

Fig. 29



COMMUNICATION LOG LIST

TELLEPHONE SET ON THE DESK

TIME OF OUTGOING/ INCOMING CALL	FLAG	SPEAKING TIME	CONNECTION DISTINATION ADDRESS	CONNECTION DISTINATION INFORMATION	RESULT
January 30, 9:10	Incoming	03:15	10.254.212.15		Successful
January 30, 9:20	Outgoing	00:31	10.254.211.19	Kawasaki Plant, Patent Dept.	,,
January 30, 10:01	Incoming	01:42	10.254.211.14	AAA Co., Taro Fujitsu	,,
January 30, 10:30	Incoming	04:08	10.254.211.16	BBB Co., Saburo Fujitsu	,,
⋮	⋮	⋮	⋮	⋮	⋮

Connect | Print | OK | Cancel

Fig. 30

EXAMPLE OF CONTROL COMMAND(RETRIEVE COMMUNICATION LOG)

COMMAND TYPE	REQUESTING PARTY ADDRESS	OUTGOING/ INCOMING FLAG	RESULT	DETAIL

Fig. 31

EXAMPLE OF CONTROL COMMAND(COMMUNICATION LOG)

COMMAND TYPE	REQUESTING PARTY ADDRESS	NUMBER OF OUTGOING/ INCOMING CALLS IN LIST

ONE FOREACH OUTGOING/ INCOMING CALL

COM-MUNI-CATION NO.	OUTGOING/ INCOMING FLAG	SUCCESS FLAG	OUTGOING/ INCOMING TIME	SPEAKING TIME	CONNECTION DESTINATION ADDRESS	OPPOSITE PARTY INFORMATION
COM-MUNI-CATION NO.	OUTGOING/ INCOMING FLAG	SUCCESS FLAG	OUTGOING/ INCOMING TIME	SPEAKING TIME	CONNECTION DESTINATION ADDRESS	OPPOSITE PARTY INFORMATION

RESULT	DETAIL

Fig. 32

FLOW OF COMMUNICATION LOG ACQUISITION PROCESSING

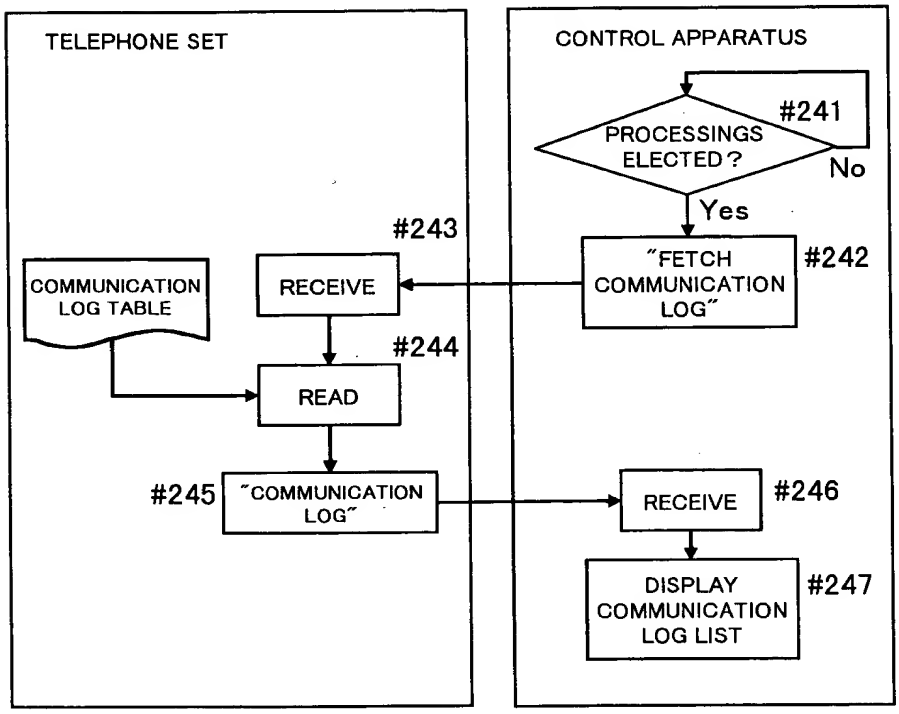


Fig. 33

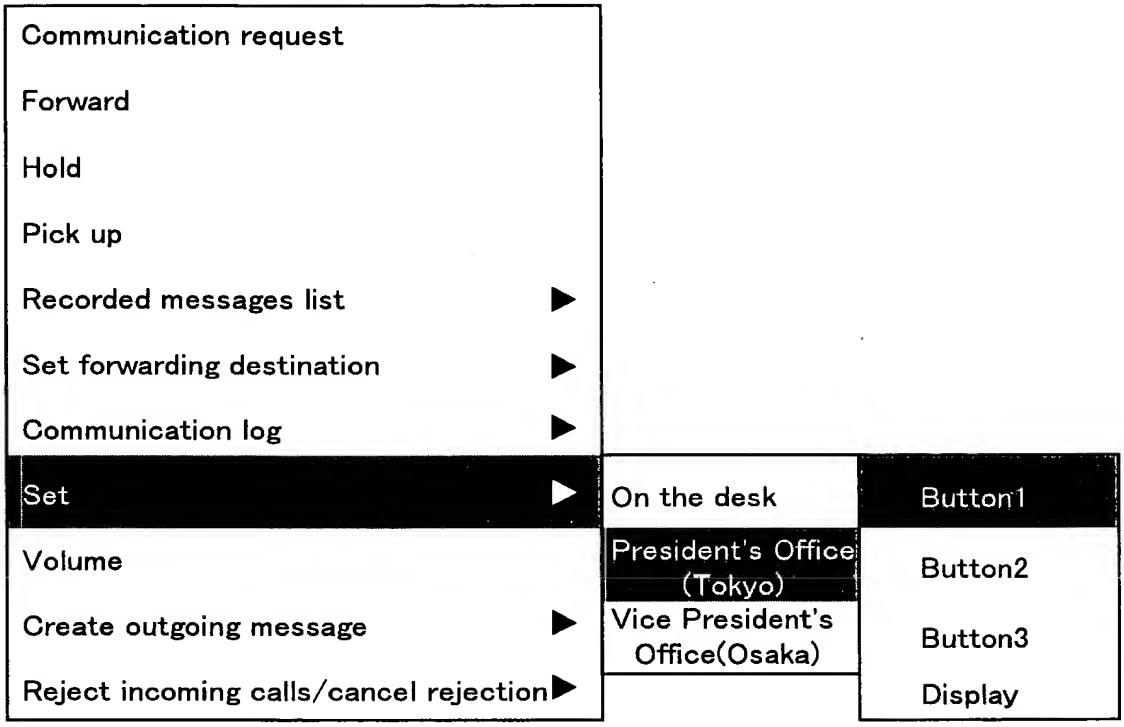

Communication request
Forward
Hold
Pick up
Recorded messages list
Set forwarding destination
Communication log
Set
Volume
Create outgoing message
Reject incoming calls/cancel rejection
On the desk
President's Office (Tokyo)
Vice President's Office(Osaka)
Button1
Button2
Button3
Display

Fig. 34

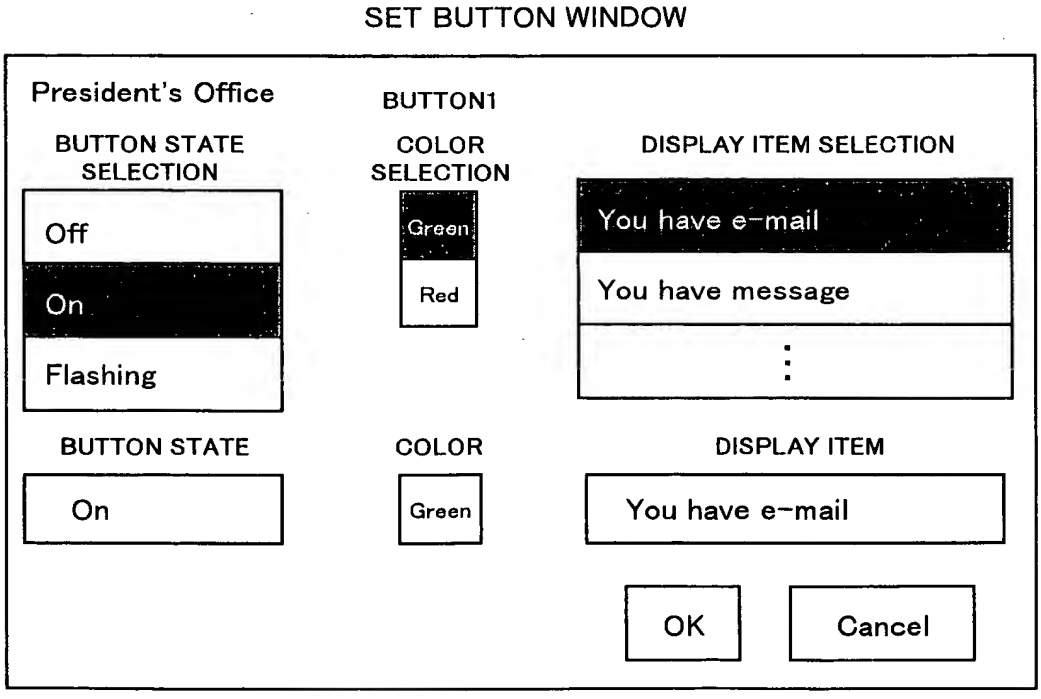

SET BUTTON WINDOW
President's Office
BUTTON1
BUTTON STATE SELECTION
COLOR SELECTION
DISPLAY ITEM SELECTION
Off
On
Flashing
Green
Red
You have e-mail
You have message
BUTTON STATE
COLOR
DISPLAY ITEM
On
Green
You have e-mail
OK
Cancel

Fig. 35

EXAMPLE OF CONTROL COMMAND(SET)

COMMAND TYPE	SET FUNCTION TYPE	SET FLAG	REQUESTING PARTY ADDRESS

BUTTON IDENTIFIER	DISPLAY COLOR TYPE	DISPLAY PATTERN	CHARACTER LENGTH	DISPLAY CHARECTER DATA

RESULT	DETAIL

Fig. 36

EXAMPLE OF CONTROL COMMAND
(INPUT INFORMATION)

COMMAND TYPE	REQUESTING PARTY ADDRESS	INPUT DEVICE TYPE	RESULT	DETAIL

Fig. 37

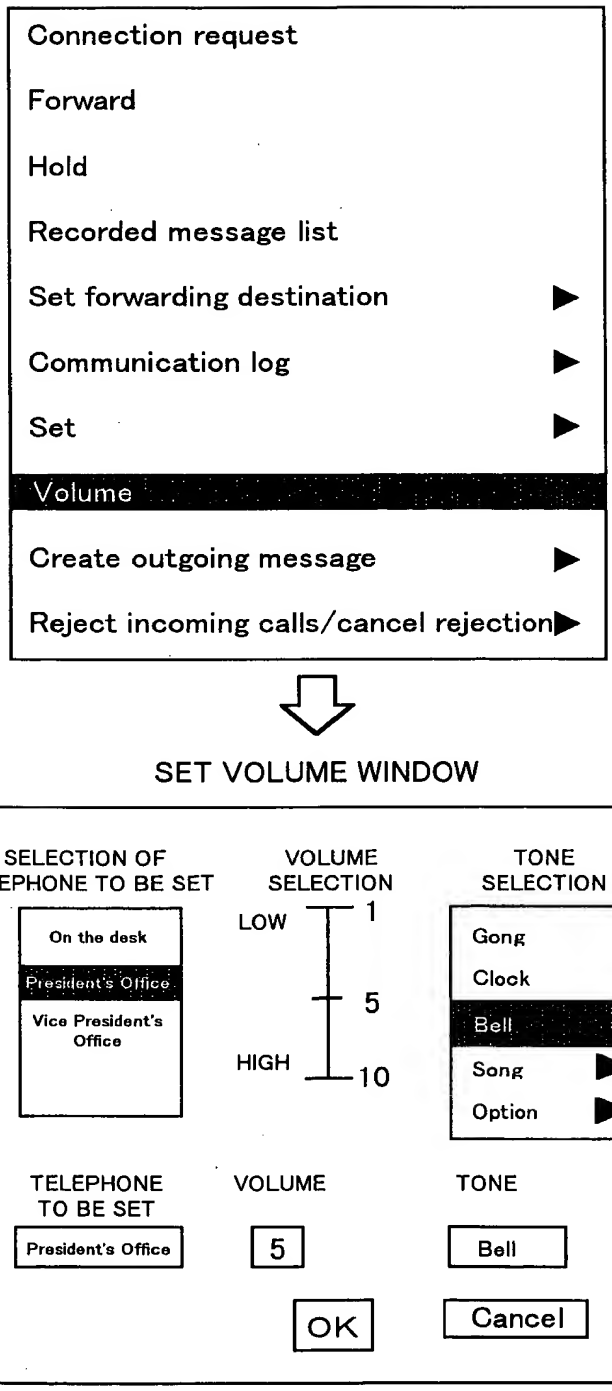

Connection request
Forward
Hold
Recorded message list
Set forwarding destination
Communication log
Set
Volume
Create outgoing message
Reject incoming calls/cancel rejection
SET VOLUME WINDOW
SELECTION OF TELEPHONE TO BE SET
On the desk
President's Office
Vice President's Office
VOLUME SELECTION
LOW
HIGH
1
5
10
TONE SELECTION
Gong
Clock
Bell
Song
Option
TELEPHONE TO BE SET
President's Office
VOLUME
5
TONE
Bell
OK
Cancel

Fig. 38

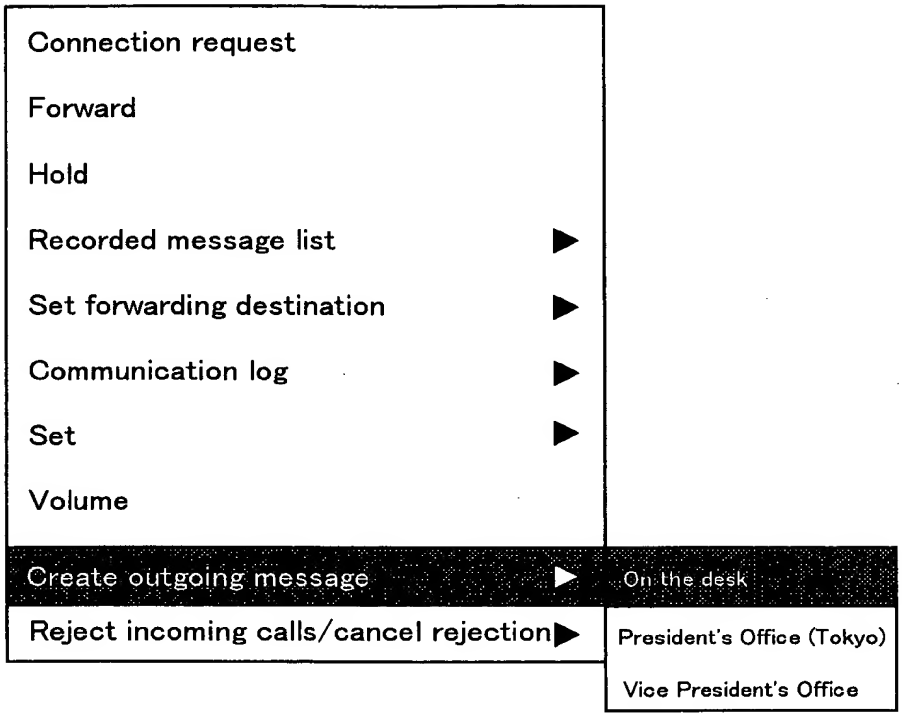
EXAMPLE OF CONTROL COMMAND
(SET SOUND)

COMMAND TYPE	SET FUNCTION TYPE	SET FLAG	REQUESTING PARTY ADDRESS

SET VOLUME	CODING TYPE	TONE LENGTH	TONE DATA

RESULT	DETAIL

Fig. 39



CREATE OUTGOING MESSAGE WINDOW

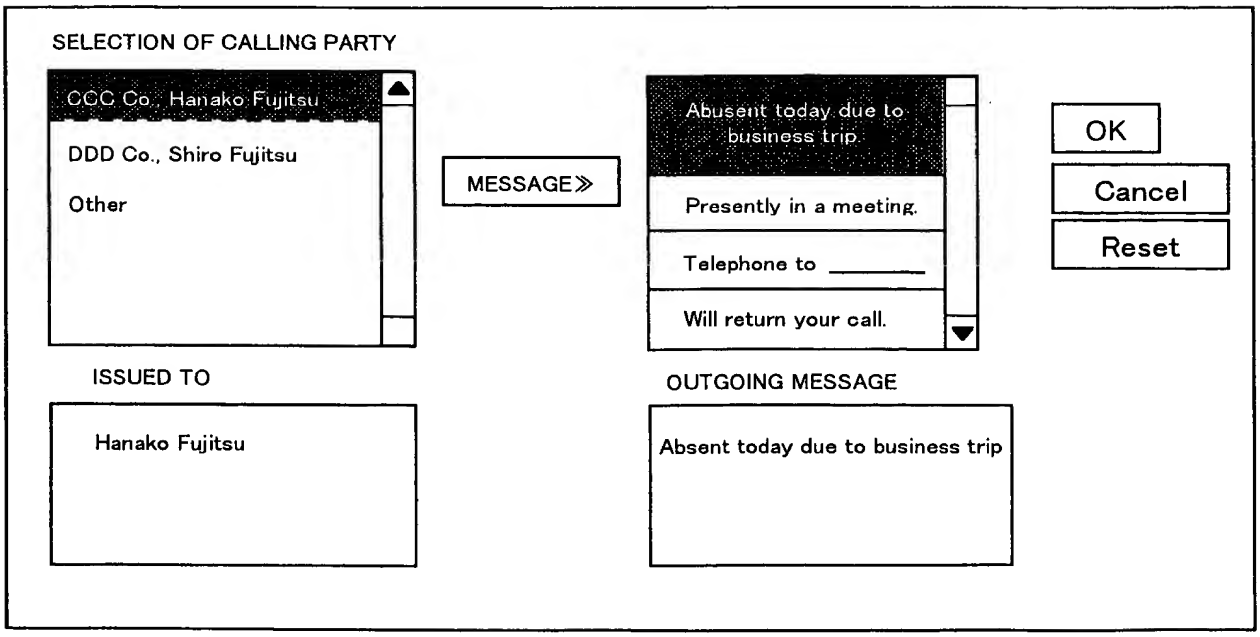


Fig. 40

EXAMPLE OF CONTROL COMMAND
(CREATE MESSAGE)

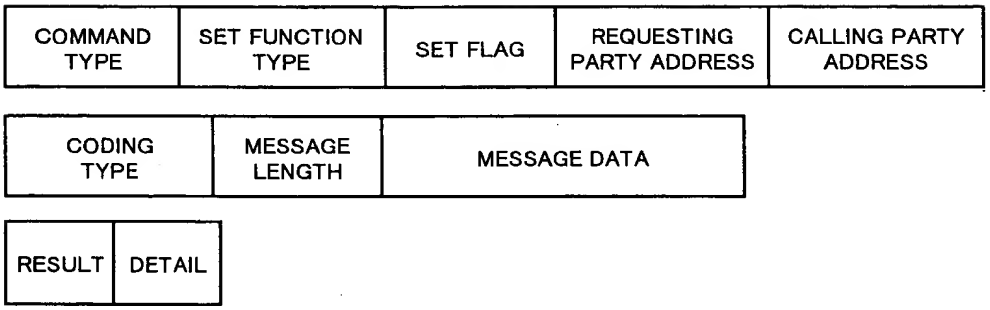


Fig. 41

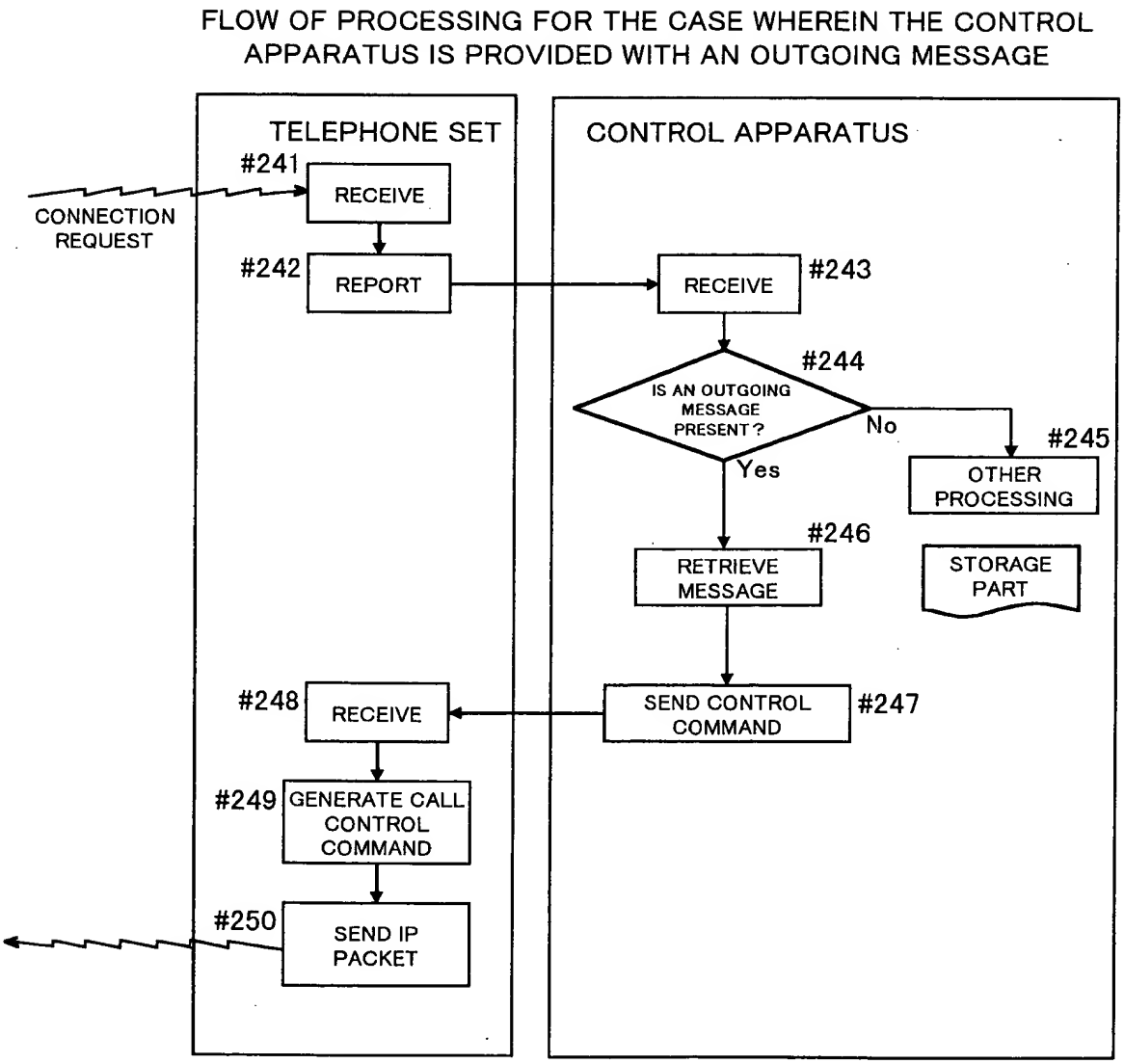
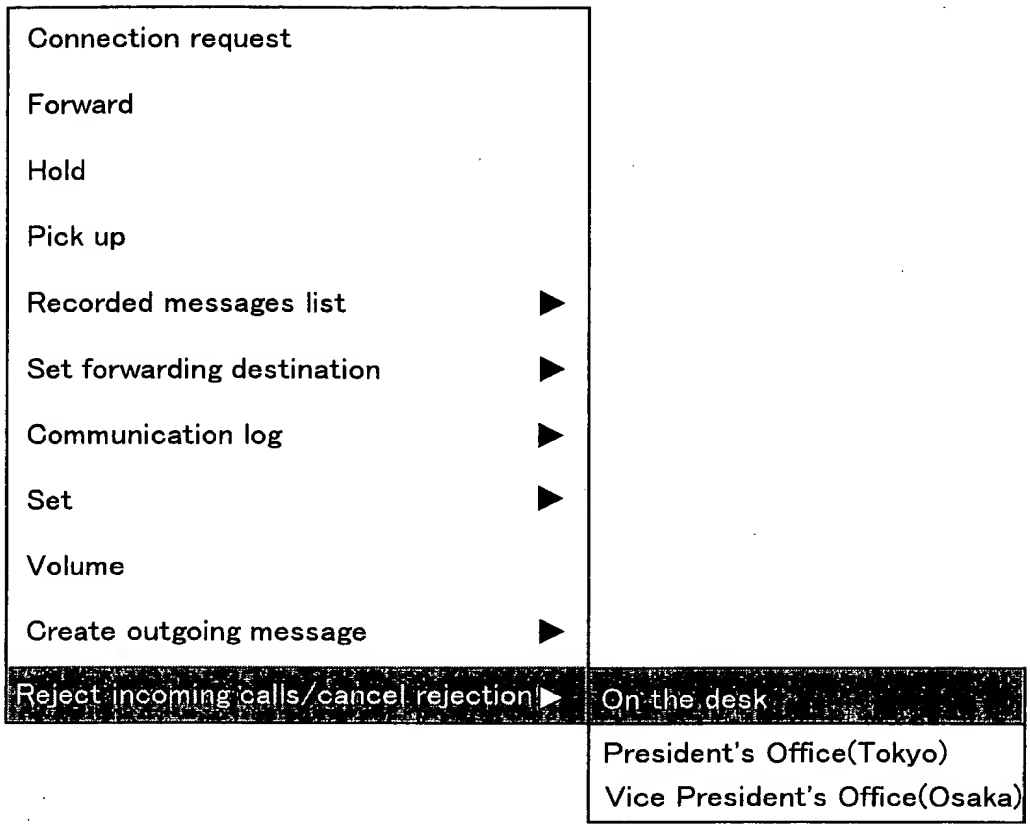

FLOW OF PROCESSING FOR THE CASE WHEREIN THE CONTROL APPARATUS IS PROVIDED WITH AN OUTGOING MESSAGE
TELEPHONE SET
CONTROL APPARATUS
CONNECTION REQUEST
#241
RECEIVE
#242
REPORT
RECEIVE
#243
#244
IS AN OUTGOING MESSAGE PRESENT?
No
#245
OTHER PROCESSING
Yes
#246
RETRIEVE MESSAGE
STORAGE PART
#248
RECEIVE
SEND CONTROL COMMAND
#247
#249
GENERATE CALL CONTROL COMMAND
#250
SEND IP PACKET

Fig. 42



REJECT INCOMING CALLS/
REJECTION WINDOW

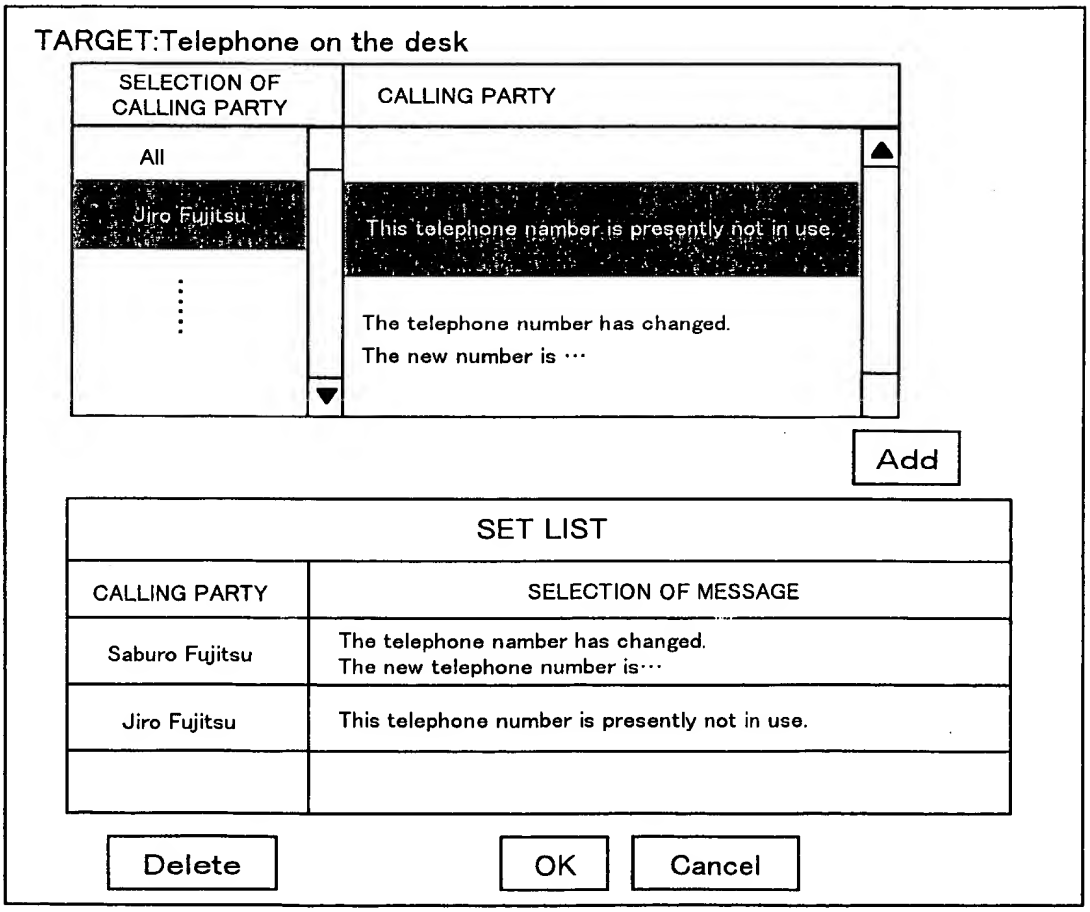


Fig. 43

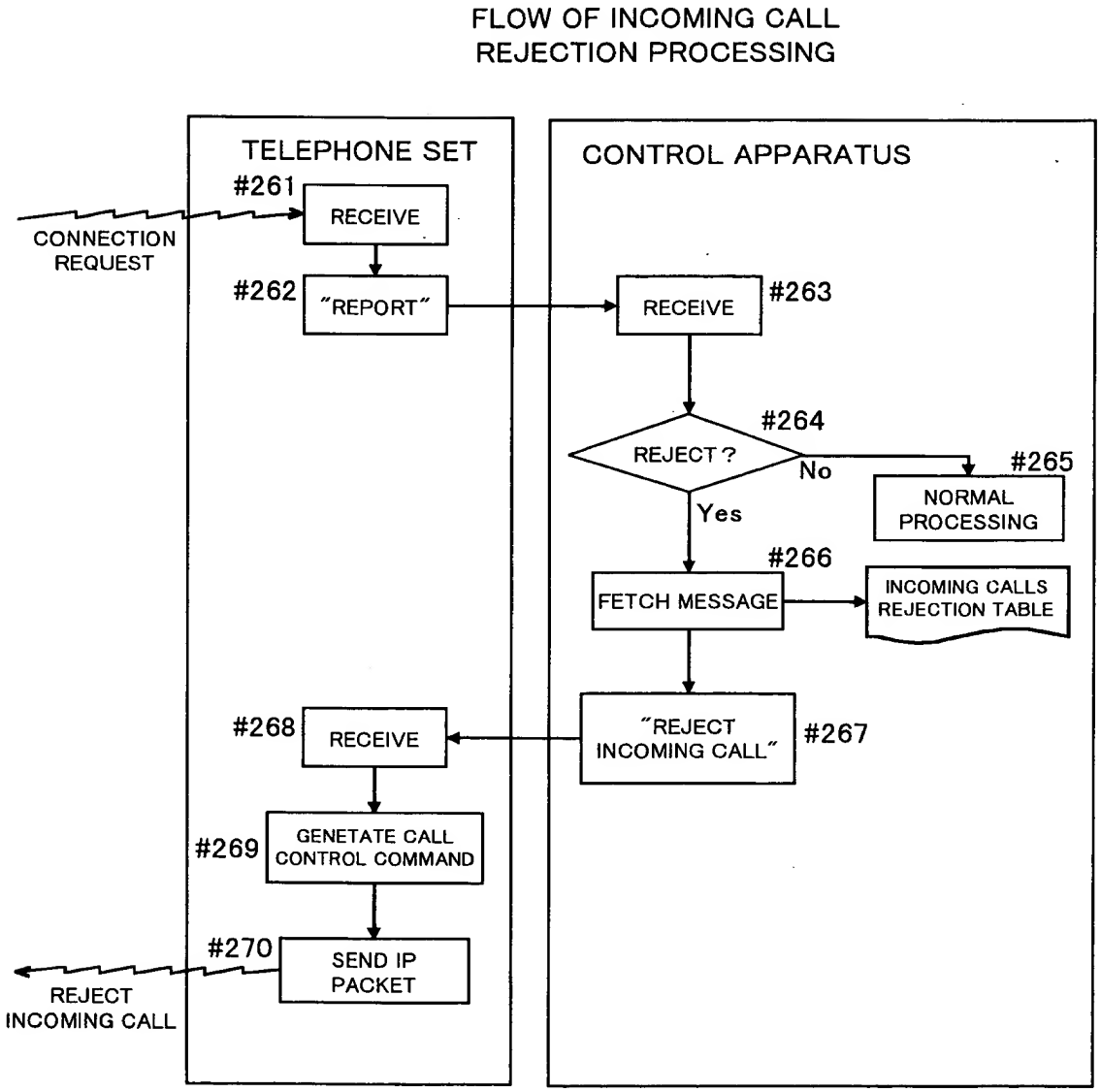

FLOW OF INCOMING CALL REJECTION PROCESSING
TELEPHONE SET
CONTROL APPARATUS
CONNECTION REQUEST
#261
RECEIVE
#262
"REPORT"
RECEIVE
#263
#264
REJECT ?
No
#265
NORMAL PROCESSING
Yes
#266
FETCH MESSAGE
INCOMING CALLS REJECTION TABLE
#268
RECEIVE
"REJECT INCOMING CALL"
#267
#269
GENETATE CALL CONTROL COMMAND
#270
SEND IP PACKET
REJECT INCOMING CALL

Fig. 44

EXAMPLE OF CONTROL COMMAND
(REJECTION OF INCOMING CALLS AND
CANCELLATION OF REJECTION)

COMMAND TYPE	CALL IDENTIFIER	REQUESTING PARTY ADDRESS

CODING TYPE	MESSAGE LENGTH	MESSAGE DATA

RESULT	DETAIL

Fig. 45

OPERATION PANEL WINDOW

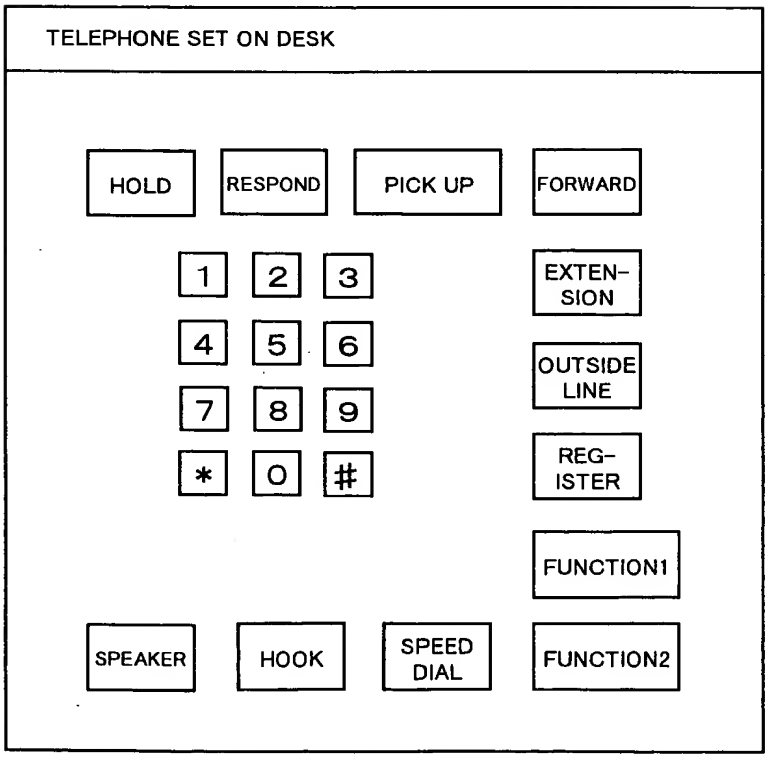


Fig. 46

EXAMPLE OF CONTROL COMMAND
(REPORT INPUT DEVICES)

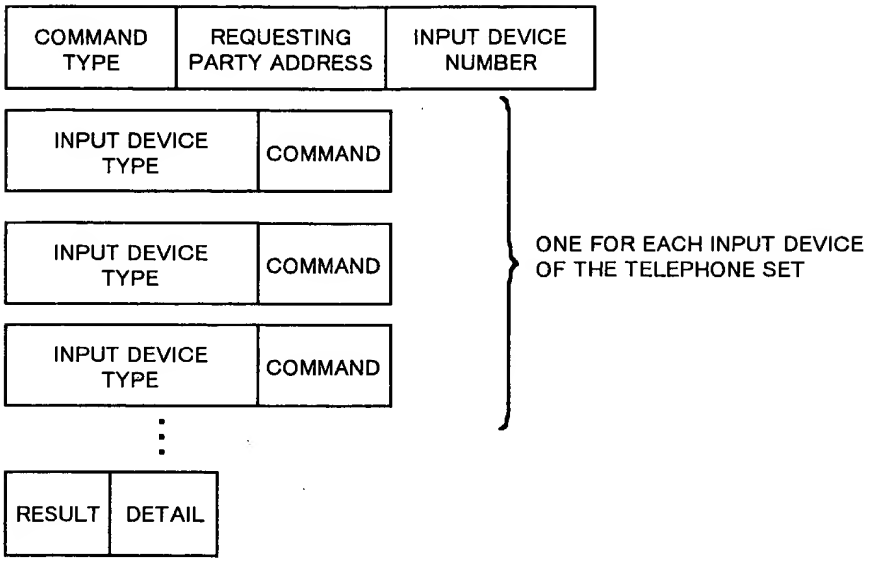


Fig. 47

EXAMPLE OF CONTROL COMMAND
(COMMUNICATION STATE NOTIFICATION)

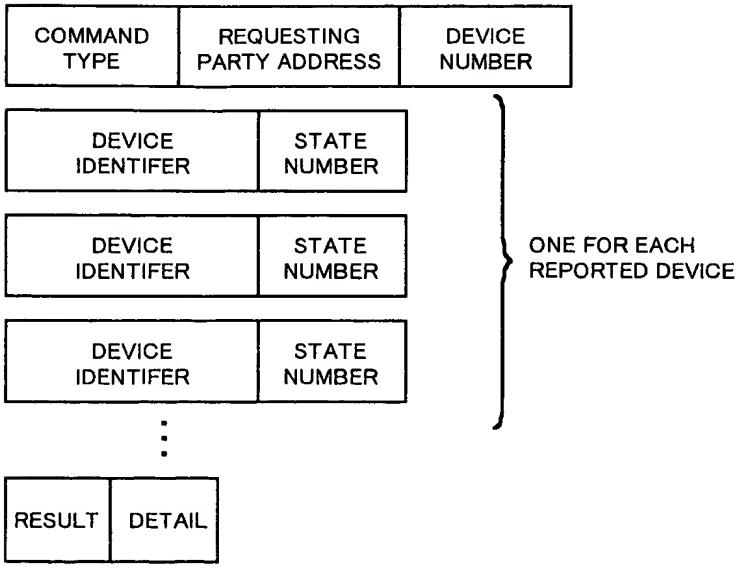


Fig. 48

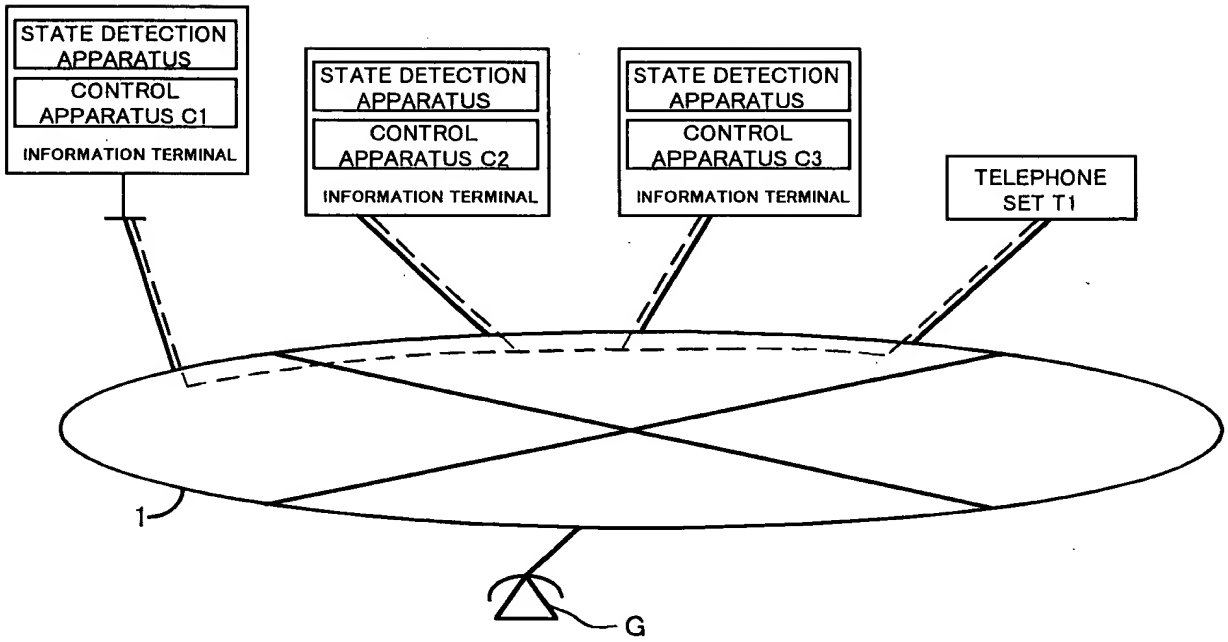

STATE DETECTION APPARATUS
CONTROL APPARATUS C1
INFORMATION TERMINAL
STATE DETECTION APPARATUS
CONTROL APPARATUS C2
INFORMATION TERMINAL
STATE DETECTION APPARATUS
CONTROL APPARATUS C3
INFORMATION TERMINAL
TELEPHONE SET T1
1
G

Fig. 49

EXAMPLE OF CONTROL COMMAND(INPUT)

COMMAND TYPE	REQUESTING PARTY ADDRESS	INPUT NO.	INPUT DEVICE TYPE	RESULT	DETAIL

(SEVERAL INPUT DEVICE TYPES MAY BE INCLUDED)